

REMARKS

Reconsideration of the above-identified patent application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-8 are in this case. Claims 1 and 2 have been rejected under § 102(b). Claims 1-8 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting. Claims 1, 3, 6 and 7 have been objected to. Independent claims 1 and 3 and dependent claims 6 and 7 have been amended. New dependent claims 9 and 10 have been added.

The claims before the Examiner are directed toward methods by which a base station, to which a mobile unit is being handed off, synchronizes with the base station that is handing off the mobile unit. According to the first method, the base station that is handing off the mobile unit sends call parameters and rough synchronization information to its neighbors and the neighbors monitor transmissions from the base station that is handing off the mobile unit and/or from the mobile unit and/or from a beacon transmitter. According to the second method, the base station that is handing off the mobile unit sends rough synchronization information to its neighbors. Based on the rough synchronization information, the neighbors seek and acquire “target” signals that have the correct timing for the mobile unit and then synchronize to the base station that is handing off the mobile unit.

§ 102(b) Rejections – Heineck et al. ‘759

The Examiner has rejected claims 1 and 2 under § 102(b) as being anticipated by Heineck et al., US Patent No. 5,519,759 (henceforth, “Heineck et al. ‘759”). The Examiner’s rejection is respectfully traversed.

Heineck et al. '759 teach a method of synchronizing the base stations of a cellular telephony system. The base stations communicate with a communication system via trunk lines and directly with each other wirelessly. Prompted by start information from the communication system, one base station (BS1) broadcasts synchronization information. The base stations (BS2 and BS3) within wireless range of BS1 send receivability information to the communication system, which sends back to BS2 and BS3 level measuring information that prompts BS2 and BS3 to measure the strength of the signals they receive from BS1 and to send those measurements back to the communication system. The communication system instructs the base station (BS3) that receives the stronger signal to synchronize with BS1 and take over from BS1 the job of broadcasting synchronization information. The procedure continues until all the base stations are synchronized.

The principal difference between the teachings of Heineck et al. '759 and the present invention as recited in claim 1 is that the present invention is directed towards synchronization between base stations in relation to a communication session between a base station and a mobile unit, whereas the method of Heineck et al. '759 is directed towards initial synchronization "following an installation of the communication systems" (column 7 lines 23-24) and subsequently only as needed for the base stations collectively, but not in relation to a specific communication session between a mobile unit and a base station. Indeed, Heinick et al. '759 state, in column 6 line 48, that "a constant synchronization is not required".

This aspect of the present invention is recited in the body of claim 1 as the sending of "call parameters" from the base station connected with the mobile unit to the at least one neighboring base station. The Examiner has interpreted "call parameters" as reading on information such as start information that the

communication system of Heineck et al. '759 sends to the base stations of Heineck et al. '759 and on "radio transmission conditions" (presumably the receivability information) that the base stations of Heineck et al. '759 send to the communication system of Heineck et al. '759. None of this information is sent from one base station to another, unlike the call parameters of the present invention, that are sent from the base station connected with the mobile unit to the at least one neighboring base station.

Therefore, the present invention, as recited in claim 1, is not anticipated by Heineck et al. '759. Furthermore, the present invention, as recited in claim 1, is not even obvious from Heineck et al. '759. There is neither a hint nor a suggestion in Heineck et al. '759 of any need for the base stations to send information other than the synchronization information directly to each other.

With independent claim 1 allowable in its present form, it follows that claim 2, that depends therefrom, also is allowable.

Double Patenting Rejections

The Examiner has rejected claims 1-8 provisionally under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 7-10 of copending US Published Patent Application No, 2002/0147016. The Examiner has noted that the rejection may be overcome by filing a terminal disclaimer that disclaims the terminal part of the term of any patent granted on the above-identified patent application that would extend beyond the expiration date of any patent granted on US 2002/0147016.

Attached please find such a terminal disclaimer.

New Claims

To further distinguish the present invention from the prior art cited by the Examiner, Applicant has added new claims 9 and 10.

New claim 9 adds to claim 1 the limitation that the call parameters are related to the connection between the base station connected with the mobile unit and the mobile unit. Applicant believes that this limitation is inherent in claim 1 as filed, in light of the use of the term “call parameter” in the specification. The purpose of new claim 9 is to make this limitation explicit.

Specifically, there are several places in the specification that make it clear that “call parameters” are parameters of the connection between a base station and a mobile unit that is in contact with that base station, and not parameters of the connection between the base station and the switch (which would be the analog in the present invention of the connections in Heineck et al. ‘759 between a base station and the communication system) or of a connection between two base stations. Applicant notes that the two parameters of Heineck et al. ‘759 that the Examiner interpreted the term “call parameters” as reading on are a parameter of a connection between a base station and the communication system (start information) and a parameter of a connection between two base stations (radio transmission conditions).

Starting with page 31 lines 13-16, in the context of the method illustrated in Figure 9C for synchronizing two base stations,

In this case, there is no need to transmit synchronization information over the LAN 140. Only call parameters (e.g., low-level protocol) need to be communicated between the current Base Station and the neighboring candidate next Base Stations... (emphasis added)

On page 28 line 8 it is noted that “each instance of the low-level protocol supports only one call” (emphasis added)

Turning next to page 42, it is stated on lines 2, 11 and 13 that call routing includes a comparison of call parameters with the Connections Table. On page 40 lines 22-23, the Connections Table is defined as containing “information about all the connections between handsets and Base Stations” (emphasis added). The Connections Table entries listed on page 40 line 28 through page 41 line 4 all are parameters of a communication session between a base station and a mobile unit.

Turning finally to the examples of call parameters that are presented on page 57 lines 26-27, page 59 lines 10-11, page 61 lines 19-20 and page 66 line 10, these examples are:

Page 57 lines 26-27: “TOD, device address, encryption key, authentication key, links status, etc.”

Page 59 lines 10-11: “TOD, device address, encryption key, authentication key, links status, etc.”

Page 61 lines 19-20: “time, caller ID, called ID, reason for termination, etc.”

Page 66 line 10: “Bluetooth device address, TOD, Encryption key, authentication key, etc.”

All of these parameters are parameters of a communication session between a base station and a mobile unit.

New claim 10 adds to claim 1 the limitation that the base station connected with the mobile unit sends the call parameters and the rough synchronization information to the at least one neighboring base station over a LAN. This is in contrast to Heineck et al. ‘759, in which the synchronization information (that the Examiner interpreted “rough synchronization” as reading on) is transmitted wirelessly

from one base station to another. Support for new claim 10 is found in the specification on page 30 lines 7-8:

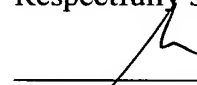
The "current" Base Station 123 sends call parameters and rough synchronization information over the LAN 140 to the neighboring Base Stations...

Objections

The Examiner has objected to claims 1, 3, 6 and 7 as capitalizing the first letters of "Base Station" and "Switch". Claims 1, 3, 6 and 7 now have been amended to correct this informality.

In view of the above amendments and remarks it is respectfully submitted that independent claims 1 and 3, and hence dependent claims 2 and 4-10 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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